NCDOT 2014 Traffic Data Event Shapefile

The Traffic Data Event shapefile contains Annual Average Daily Traffic (AADT) and Vehicle Class (VC) estimates. This data resource includes what was submitted to FHWA for Highway Performance Monitoring System (HPMS) for AADT and VC data reporting for 2014. We report AADT on all highways functionally classified (FC) above Local. A full coverage is provided for these routes where AADT segmentation is based on network configuration, travel patterns, and land use. Where divided highways occur, the AADT total for both directions is referenced on the inventory direction. Data is provided for ramps also. The ramp data does not cover all ramp segments but all major traffic flows at interchanges are reported. There are 29,694 AADT segments maintained by Traffic Survey to meet traffic monitoring requirements. Most maintained traffic segments require multiple records from the linear referencing system (LRS) and are maintained in this format to preserve location referencing event data. A total of 73,797 reference records (labeled "MAINT" in the SOURCE field) are required to provide event data for all maintained AADT segments.

Supplemental AADT are provided on the routes that are Local FC. These are not maintained in the maintenance table described above. A reference is generated through a spatial join between the monitoring station point and the LRS Arc it falls on. The extent of highway this AADT represents has not been determined. This process captures the AADT for Local routes into the published table without requiring a comprehensive maintenance process. The AADT on Local routes may extend beyond the arc used to report it. The user must exercise their judgment in determining the extent of highway for an AADT in this case. There are 16,284 records that are supplemented (labeled "SUPP" in the SOURCE field) using this method, one record for each station captured.

VC data is provided for those segments where vehicle class data was collected. Truck volume data is collected at stations and the volumes are annualized. Annualized truck percentages for Single Unit (SU) and Multi Unit (MU) trucks are generated from this data. These truck percentages are applied to the 2014 AADT estimates to generate 2014 truck volume estimates. The truck percentage and volume estimates are provided in the shapefile. The VC coverage includes the National Highway System (NHS) and the NC Truck Network. VC data is not collected on routes not part of these systems and truck statistics are not provided on these segments.

The referencing provided is based on the 2015 Quarter 1 publication of the NCDOT Linear Referencing System (LRS) maintained by the GIS Unit. This is the official 2014 data set reported for HPMS routes, is the basis for the highway mileage reports, and was used to estimate vehicle miles of travel (VMT) for 2014. Differences in the arcs and references will be found when using other quarterly publications with this data set.

Attribute Table Fields

The traffic data provided is seasonally factored to an estimate of an annual average of daily traffic. The statistics provided are:

Rte_Id: GIS 10 digit unique route identifier
BegMp1: Route milepost at the beginning of the reference
EndMp1: Route milepost at the end of the reference
G1FtSeg: LRS segment identifier
Beg_G1Fact: Percent of the LRS segment for the start of the reference
End_G1Fact: Percent of the LRS segment for the end of the reference
AADT_2014: Estimated Annual Average Daily Traffic in vehicles per day for 2014
SU_PCT: Percent of AADT that are Single Unit Trucks (FHWA Class 4 – 7)
MU_PCT: Percent of AADT that are Multi Unit Trucks (FHWA Class 8 – 13)
SU_AADT: Estimated annual average daily single unit trucks for 2014
MU_AADT: Estimated annual average daily multi-unit trucks for 2014
AADTT2014: Estimated annual average daily total trucks in vehicles per day for 2014
SOURCE: Process used to generate LRS references; MAINT are defined traffic segments maintained in the traffic reference table; SUPP are references generated by spatial join between monitoring stations on Local routes and the LRS arcs they fall on to supplement the maintenance data.

The segment location data are suitable for relating the AADT/VC data with other data by:

1. Spatial association using the arcs
2. Event association using the Route/Mileposts
3. Event association using the LRS (G1) ID/Factors

If additional information is needed, or an issue with the data is identified, please contact the Traffic Survey Group at (919) 661-5872 or email us at:

https://apps.dot.state.nc.us/ContactUs/PostComment.aspx?Unit=TrafficCnt

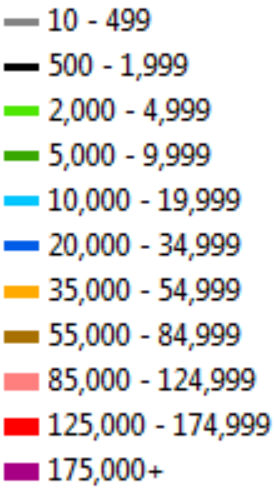
DISCLAIMER: The North Carolina Department of Transportation shall not be held liable for any errors in this data. This includes errors of omission, commission, errors concerning the content of the data, and relative and positional accuracy of the data. This data cannot be construed to be a legal document. Primary sources from which this data was compiled must be consulted for verification of information contained in this data.

Layer File Information

A layer file is provided to symbolize and label the data for the user. The segments are symbolized using 2014 AADT volume from the shapefile table. Three symbol levels are provided to support display of a limited set of highways when viewing a larger area and all highways when zoomed into smaller areas. All three levels use the same symbology. The route types and their associated display ranges are provided in the table:

Route Type	Minimum	Maximum
Interstates	900,001	20,000,000
Primary Routes	125,001	900,000
All Routes	0	125,000

The symbology is based on the Volume Group ranges for AADT used by FHWA in the Highway Performance Monitoring System (HPMS) data set. Line weights increase with higher AADT volumes and colors are setup to facilitate representing differences in traffic volumes on the highway network. The symbology used is:



We have combined the highest volume groups as there are no routes with AADT volumes in those ranges. The highest volume group in this scheme has just a few segments.

Labeling is provided for viewing small areas. Labels turn on when zoomed to 1:25,000 or lower. Be sure to zoom into an area with enough detail so that all labels are displayed when using the labels. ArcMap will exclude labels when zoomed to a higher scale for clarity of the map and this may mask the actual traffic volumes. This depends on the density of the features being labeled.